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A NEW SAWFLY, *FAGINEURA QUERCIVORA* (HYMENOPTERA: TENTHREDINIDAE) FEEDING ON *QUERCUS SERRATA* AND *Q. MONGOLICA CRISPULA* IN HONSHU, JAPAN

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Abstract.—***Faginuera quercivora*, n. sp.,** from Japan is described and illustrated. Females oviposited in the leaves of *Quercus serrata* Thunberg and *Q. mongolica crispula* Blume. This is the second species of *Fagineura*, a genus known only in Japan. A key is provided to the Japanese species.

Key Words: Symphyta, Tenthredinidae, Nematinae, *Fagineura*, new species, food plant, *Quercus*, Japan

Fagineura Vikberg and Zinovjev (Shinohara et al. 2000), a genus of the subfamily Nematinae, includes a single species from Japan. In 2004, I captured ten females and twelve males on Mt. Funaoka, Tsurugimachi, Ishikawa Prefecture. These females oviposited in the leaves and larvae fed on the leaves of *Quercus serrata* Thunberg and *Q. mongolica crispula* Blume.

According to the description of the genus (Shinohara et al. 2000), the specimens I captured agree with *Fagineura*. I compared the specimens with those of *F. crenativora* Vikberg and Zinovjev and found that they are clearly distinct. They are easily distinguished from *F. crenativora* by the coloration of the first and second tergites, the mesopleuron, the abdominal sternites, and the sawsheath and by the shape of the claws and the sawsheath. In addition, *F. crenativora* feeds on beech, *Fagus* sp., and the specimens I found feed on *Quercus* spp. Therefore, I concluded that they represent a new species. Below, I describe and illustrate this species and give a key to the Japanese species.

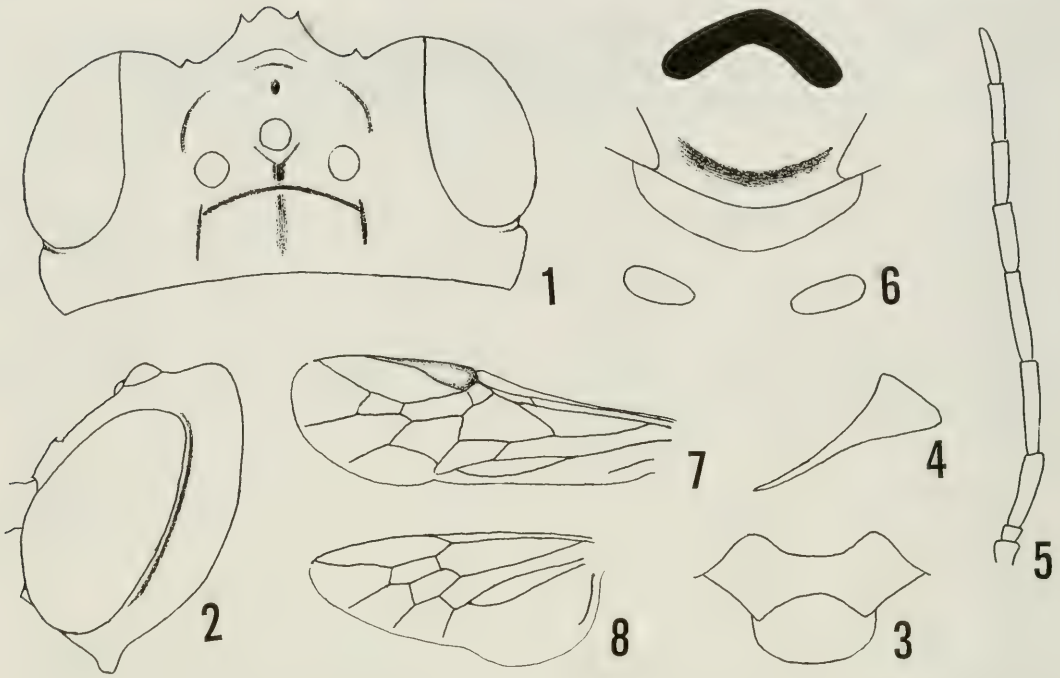
KEY TO THE JAPANESE SPECIES OF *FAGINEURA*

1. Female 2
– Male 3
2. First and second tergites black; third to last tergites mostly brown; mesopleuron yellow brown; abdominal sternites yellowish brown; sawsheath yellowish brown; sawsheath short with outer margin rather rounded in lateral view (Fig. 15) . . . . . *crenativora* Vikberg and Zinovjev
– First and second tergites yellow; third to last tergites mostly black; mesopleuron and abdominal sternites black; sawsheath black; sawsheath long with apex narrowly rounded (Fig. 13) . . . . . *quercivora*, n. sp.
3. Mesosternum and abdominal sternites yellowish brown; posterior margin of subgenital plate nearly truncate (Fig. 24) . . . . . *crenativora* Vikberg and Zinovjev
– Mesosternum and abdominal sternites black; posterior margin of subgenital plate rounded (Fig. 21) . . . . . *quercivora*, n. sp.

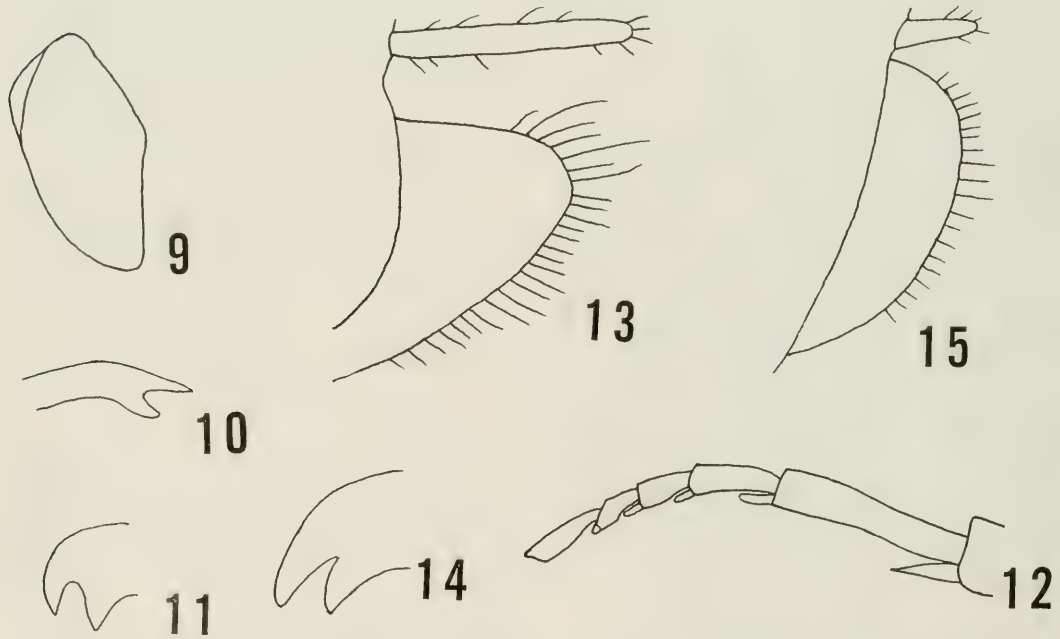
Fagineura quercivora Togashi, new species

(Figs. 1–13, 16–19, 21–23)

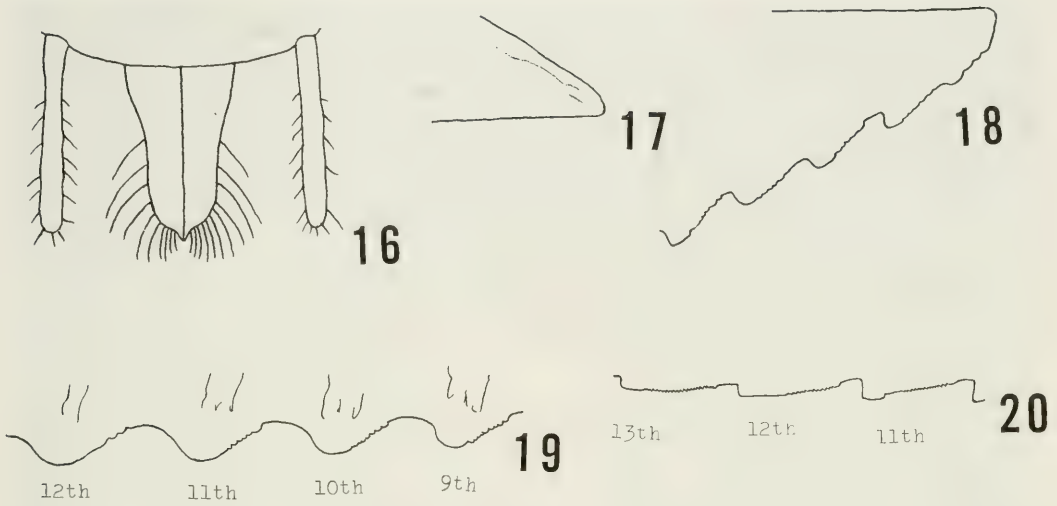
Female.—Length, 8.0–9.0 mm. Head yellowish white to yellow, with following black: frontal area, ocellar basin, postocellar area, postocular area, underside of supraclypeal area, and basal half of mandible. Antenna entirely black. Thorax black, with following yellow: pronotum, tegula, mesoscutellar appendage, mesopostnotum, cenchrus, metascutellum, metapostnotum,



Figs. 1–8. *Faginuera quercivora,* holotype. 1, Head, dorsal view. 2, Head, profile. 3, Clypeus and labarum, front view. 4, Left mandible, lateral view. 5, Antenna, lateral view. 6, Mesoscutellum and mesoscutellar appendage, dorsal view. 7, Forewing ventation. 8, Hindwing venation.



Figs. 9–15. 9–13, *Fagineura quercivora,* paratype. 9, Mesopleuron, lateral view. 10, Inner foretibial spur, lateral view. 11, Tarsal claw, lateral view. 12, Hind tarsus, lateral view. 13, Sawsheath, lateral view. 14–15, *F. crenativora.* 14, Tarsal claw, lateral view. 15, Sawsheath, lateral view.



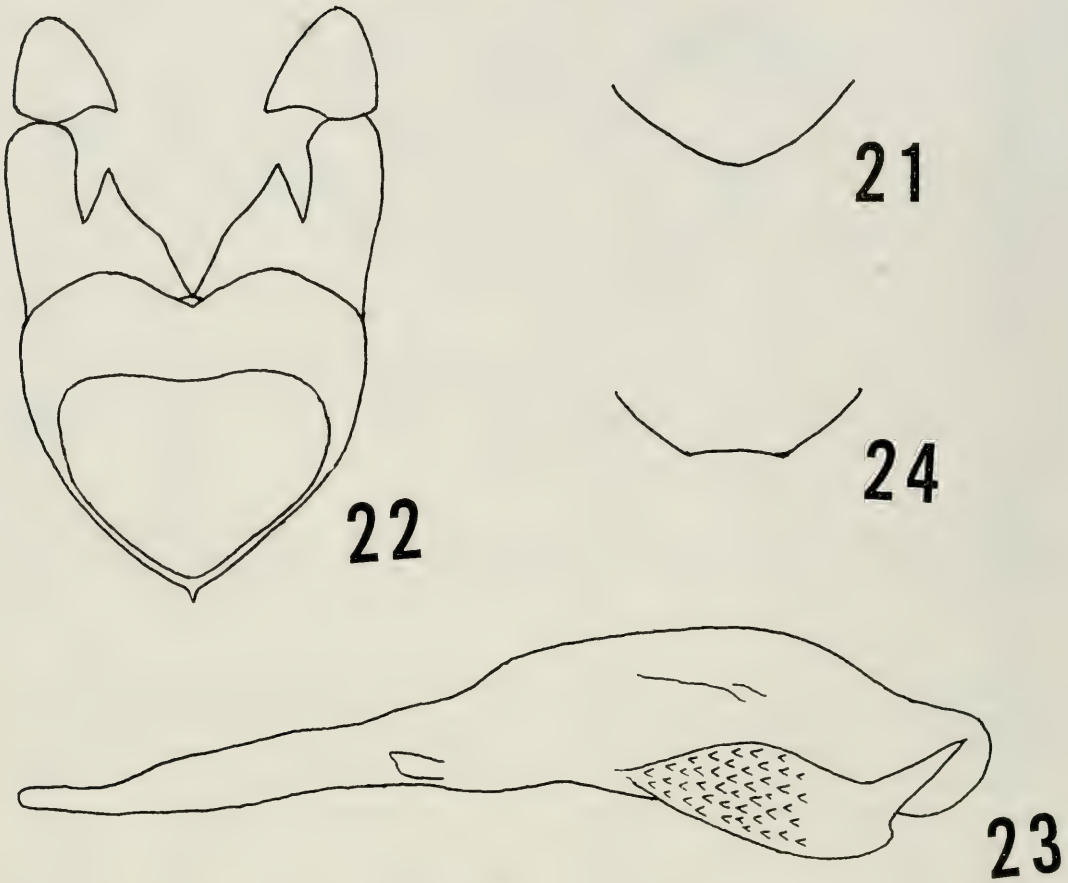
Figs. 16–20. 16–19, *Fagineura quercivora,* paratype. 16, Sawsheath, dorsal view. 17, Apical portion of lance. 18, Apical portion of lancet. 19, 9th to 12th serrulae of lancet. Fig. 20, *F. crenativora,* 10th to 13th serrulae of lancet.

postspiracular sclerite, posterior margin of mesepimeron, metepimeron, and posterior margin of metepisternum. Wings hyaline; stigma dark yellow with outer and inner sides dark brown; costa yellow, other veins dark brown to black. Legs black, with following yellowish white: all trochanters, outer side of forefemur, knees of mid- and hind femora, basal portion of foretibia, midtibia except for dark brown apex, basal ⅔ of hind tibia, and all tarsi. Abdomen black, with following yellow: 1st and 2nd tergites and lateral sides of 3rd to 7th tergites.

Head: Transverse, postocellar area transverse, convex, with a longitudinal furrow (Fig. 1); circumocellar furrow distinct but anterior half indistinct; interocellar furrow rather broad and shallow; postocellar furrow distinct and curved (Fig. 1); lateral furrows distinct and parallel; OOL:POL:OCL = 0.7:1.0:1.0; frontal area slightly concave, anterior wall distinct, lateral wall distinct, converging anteriorly (Fig. 1); median fovea deep, ellipsoidal in outline; lateral fovea distinct, circular in outline; antenno-ocular distance slightly longer than distance between antennal sockets (ratio 1.0:0.7); supraclypeal area slightly convex; clypeus gently convex, frontal margin emarginate (Fig. 3); labrum large, nearly flattened; left mandible narrow, rather gradually tapering to apex (Fig. 4); malar space nearly absent (Fig. 2); occipital carina absent (Fig. 2); postorbital groove present (Fig. 2). Antenna slender, nearly as long as costa + stigma of forewing, relative lengths of segments about 1.4:1.0:4.8:6.2:6.0:4.5:4.0:3.7:3.4; pedicel nearly quadrate (Fig. 5).

Thorax: Mesoscutellum slightly convex, frontal margin curved (Fig. 6), posterior ¼ concave; mesoscutellar appendage nearly flattened and rather narrow (Fig. 6); cenchrus large, distance between them nearly as long as breadth of one; mesepisternum with rather narrow epicnemium, separated by suture (Fig. 9). Wing venation as in Figs. 7, 8; hind wing with two middle cells; pedicel of anal cell of hind wing slightly shorter than nervulus (cu-a) (ratio as 1.0:1.2). Legs with inner foretibial spur as in Fig. 10; hind basitarsus nearly as long as following three segments combined (Fig. 12); inner hind tibial spur nearly as long as apical breath of hind tibia (Fig. 12); tarsal claw with rather large preapical tooth (Fig. 11).

Abdomen: Sawsheath as in Figs. 13, 16;



Figs. 21–24. 21–23, *Fagineura quercivora,* paratypes. 21, Posterior part of subgenital plate, ventral view. 22, Male genitalia. 23, Penis valve. 24, *F. crenativora,* posterior part of subgenital plate.

circus slightly longer than sawsheath (Fig. 13); lancet with 19 serrulae; apical portion of lance and lancet as in Figs. 17, 18; 9th to 12th serrulae as in Fig. 19.

Punctation: Head and thorax covered with setigerous punctures but postocellar area and mesopleuron sparser; epicnemium nearly impunctate, shining; mesoscutellum sparsely punctured, spaces between punctures nearly impunctate, shining; mesoscutellar appendage largely and densely punctured; abdominal tergites shagreened.

Male.—Length, 7.0–8.0 mm. Body black with following yellow: lower half of inner orbits, supraclypeal area, clypeus, labrum, labial and maxillary palpi, malar space, hind orbits, pronotum, tegula, and oval macula on mesepisternum. Antenna entirely black. Legs yellow with following black: all coxae but apical ¾ of forecoxa yellow, underside of all femora. Hind tarsus dark brown. Lateral sides of 1st to 3rd abdominal tergites yellow; lateral sides of 4th to 6th abdominal tergites with small macula.

Posterior margin of subgenital plate rounded (Fig. 21); genitalia as in Fig. 22; penis valve as in Fig. 23.

Distribution.–Japan (Honshu).

Food plants.—*Quercus serrata, Q. mongolica crispula.*

Types.—Holotype, female, 12.IV.2004, Japan, Honshu, Ishikawa Prefecture, Tsurugi-machi, I. Togashi leg. Paratypes: 2 ♀, 2 ♂, same locality as for holotype; 8 ♀, 14

Fig. 25. Larvae of *Faginuera quercivora* feeding on *Quercus* leaf.

♂, 16.IV.2004, same locality as for holotype; 1 ♀, 1 ♂, 26.IV.2004, same locality as for holotype, I. Togashi leg. Holotype and 10 paratypes deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo; 6 paratypes deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C.; 12 paratypes deposited in the Ishikawa Insect Museum, Ishikawa Prefecture.

Etymology.—The specific epithet is derived from the host plant genus.

Remarks.—This new species is easily distinguished from *F. crenativora* by the black mesopleuron (yellow in *F. crenativora*), by the yellow 1st and 2nd tergites (black in *F. crenativora*), by the longer sawsheath (short in *F. crenativora*; see Figs. 13, 15), by the long antenna, as long as the costa and stigma of the forewing (nearly as long as the costa in *F. crenativora*), and by characters of the serrulae (see Figs. 19–20).

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Literature Cited

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